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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/395,206	09/14/1999	YEO NAM SOO	P-035	5611

7590 12/18/2002

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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/395,206

Applicant(s)

SOO ET AL.

Examiner

Phuongchau Ba Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9-14-99 application.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

*Claim Objections*

1. Claims 1 and 4 are objected to because of the following informalities:

“a switching system”(claim 1, line 3) should be changed to --the switching system--

“a main processor”(claim 1, line 6; claim 4, line 4) should be changed to --the main processor--. Appropriate correction is required.

*Claim Rejections – 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1–9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the entire interval" in line 8. There is insufficient antecedent basis for this limitation in the claim. Claims 2–9 are rejected as being depended on claim 1.

*Claim Rejections – 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors

Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 10–11 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsing.

**Regarding claim 10:**

Hsing (6,167,025) discloses an actual active path judging method,  
comprising:

checking an active path (i.e., as if the alternative path is now being used  
for bypassed the failure path; col.12, lines 6-9, Hsing) formed in a direction of  
a matched last receiving board at a receiving side terminal (step 729, fig.7);

checking an active path in the reverse direction of a data transmission  
direction (step 731, fig.7); and

searching an entire active path by checking a switching path of the board  
connected to the active path (step 730, fig.7).

**Regarding claim 11:**

Hsing (6,167,025) discloses a standby path test method, comprising:

a step for checking an active path formed in a direction of a matched last  
receiving board at a receiving side terminal (step 729, fig.7), checking an active  
path in the reverse direction of a data transmission direction (step 731, fig.7),

and searching an entire active path by checking a switching path of the board connected to the active path (step 730, fig.7);

a step for setting a reverse path of the active path as a standby path (col.12, lines 6-9, Hsing); and

a step for performing a path test with respect to the set standby path (col.12, lines 6-9, Hsing).

***Claim Rejections – 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi in view of Lee.

**Regarding claim 1:**

Sakauchi (5,239,537) discloses a path management and testing method comprising:

a step, in which the device controller (fault detector 14) checks a valid path and state change for each board {col.2, lines 30-39}, for forming a database (memory 16) using the main processor (decision unit 13){col.2, lines 41-44};

a step for searching the database and confirming a standby path {col.2, lines 40-50};

Sakauchi does not disclose claimed feature.

However, in the same field of endeavor, Lee (5,907,670) discloses performing a path test for the entire interval or a certain interval with respect to the active or standby path. Therefore, it would have been obvious to an artisan to apply Lee's teaching into Sakauchi's system and the motivation being to reduce load imposed on the maintain processor {also figs.3 in Lee}.

**Regarding claim 2:**

Sakauchi further discloses forming a path state database for each board includes a step in which the device controller 14 reads a valid path (i.e., normal link) for each board to a device at an initial state stage and informs the main processor 13 of the read path {fig.3, Sakauchi}; a step in which the main processor forms a database using the read path {col.2, lines 41–44; fig.3, Sakauchi}.

Sakauchi does not disclose the claimed features. However, in the same field of endeavor, Lee discloses a step for checking a device–based state change at a certain period {Lee, figs.3, i.e., step 300 for setting periodic timer for status check}; and a step for editing the database based on the state change {Lee, col.5, lines 47–48; col.6, lines 2–6}. Therefore, it would have been obvious to an artisan to apply Lee's teaching into Sakauchi's system and the motivation being to reduce load imposed on the maintain processor {also figs.3 in Lee}.



8. Claims 3–4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi in view of Lee as applied to claim 1, and further in view of Hsing.

Sakauchi does not disclose the claimed feature.

However, in the same field of endeavor, Hsing (6,167,025) discloses checking the active path (i.e., as if the alternative path is now being used for bypassed the failure path; col.12, lines 6–9, Hsing), in which an active path to the matched last receiving board is checked by the receiving side terminal (step 729, fig.7), and an active path is checked in the reverse direction of the data transmission direction (step 731, fig.7), and the entire active paths are searched by checking the switching path of the boards connected with the active path (step 730, fig.7)(claim 3); and wherein in said standby path setting step, in the case that a certain path is set as an active path which is different from the current path by checking the valid path for each board with respect to the standby path which is set as the reverse path of the active path, the set path is changed {col.12, lines 6–9, Hsing}(claim 4). Therefore, it would have been obvious to an artisan to apply Hsing's teaching to Sakauchi's system and the

motivation being to restore a failed connection without having to repeat all of the set-up procedure to initially establish the call {Hsing, col.26, lines 59-60}.

9. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi in view of Lee as applied to claim 1, and further in view of Tabata.

Regarding claim 5: Sakauchi does not disclose the claimed feature.

However, in the same field of endeavor, Tabata (5,875,172) discloses said path test step including a step for receiving a parameter value (from Line check parts 41) used for a path test {col.5, lines 57-67}; a step for forming a test path based on the parameter value {col.6, lines 8-19}; a step for inserting a test pattern data into an input side device (line check parts 41); a step for extracting a test pattern data from an output side device (line check parts 41) {col.5, lines 42-54}; and a step for judging an error with respect to the test path interval by comparing an input data and an extraction data {col.5, lines 51-54 & col.6, 1-8}. Therefore, it would have been obvious to an artisan to apply Tabata's

teaching into Sakauchi's system and the motivation being to restore the failed line automatically.

**Regarding claim 7:**

Sakauchi does not disclose the claimed feature and Lee discloses searching an error interval {Lee, col.5, lines 9-14, 34-39}.

However, in the same field of endeavor, Tabata further discloses performing an interval-based path test when the input data and the extracted data are different {Tabata, col.5, lines 50-51}. Therefore, it would have been obvious to an artisan to apply Tabata's teaching into Sakauchi's system and the motivation being to restore the failed line automatically.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi in view of Lee & Tabata as applied to claims 1&5, and further in view of Hsing.

Sakauchi does not disclose the claimed features and Tabata discloses a board (Line Check Frame Inserting/Extracting 40) for inserting or extracting a

test pattern data (F2 bytes; col.5, lines 44–45 in Tabata), a subsystem (ADM, fig.2) in which the board is mounted, a link number in the subsystem and a pattern data used for the test {Tabata, col.5, lines 51–54}.

However, in the same field of endeavor, Hsing discloses the parameter value indicates the kind of a test path (i.e., the active path or the standby path which is now set as an active path; col.12, lines 6–9, Hsing) and a test type (i.e., testing as if the switch is the destination switch or go back to monitor; Hsing, fig.7, step729). Therefore, it would have been obvious to an artisan to apply Hsing's teaching into Sakauchi's system and the motivation being to restore a failed connection without having to repeat all of the set-up procedure to initially establish the call {Hsing, col.26, lines 59–60}.

11. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsing as applied to claim 11, and further in view of Tabata and Lee.

**Regarding claim 12:**

–Hsing does not disclose the claimed feature. However, in the same field of endeavor, Tabata (5,875,172) discloses said path test step including a step for receiving a parameter value (from Line check parts 41) used for a path test {col.5, lines 57–67}; a step for forming a test path based on the parameter value {col.6, lines 8–19}; a step for inserting a test pattern data into an input side device (line check parts 41); a step for extracting a test pattern data from an output side device (line check parts 41) {col.5, lines 42–54}; and a step for judging an error with respect to the test path interval by comparing an input data and an extraction data {col.5, lines 51–54 & col.6, 1–8}. Therefore, it would have been obvious to an artisan to apply Tabata's teaching into Hsing's system and the motivation being to restore the failed line automatically.

–Hsing & Tabata do not disclose claimed feature. However, in the same field of endeavor, Lee (5,907,670) discloses searching an error interval {col.5, lines 51–54 & col.6, 1–8}. Therefore, it would have been obvious to an artisan to apply Lee's teaching into Hsing's system and the motivation being to reduce load imposed on the maintain processor {also figs.3 in Lee}.

**Regarding claim 14:**

Hsing discloses the parameter value indicates a test type (i.e., testing as if the switch is the destination switch or go back to monitor; Hsing, fig.7, step 729).

Hsing does not disclose the claimed features. However, in the same field of endeavor Tabata discloses a board (Line Check Frame Inserting/Extracting 40) for inserting or extracting a test pattern data (F2 bytes; col.5, lines 44–45 in Tabata), a subsystem (ADM, fig.2) for mounting the board, a link number in the subsystem, and a pattern data used for the test {Tabata, col.5, lines 51–54}. Therefore, it would have been obvious to an artisan to apply Tabata's teaching into Hsing's system and the motivation being to restore the failed line automatically.

***Allowable Subject Matter***

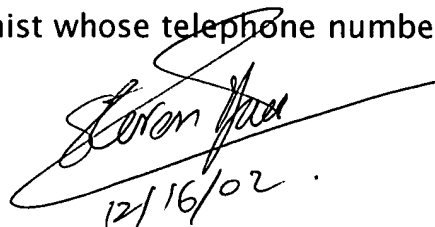
12. Claims 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 6 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

  
12/16/02

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PN

Phuongchau Ba Nguyen  
Examiner  
Art Unit 2665

December 15, 2002